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**PRESS RELEASE 112917, NOVEMBER 29, 2017 – CENTRAL AMERICA’S FIRST HYDROGEN TRANSPORTATION ECOSYSTEM BECOMES OPERATIONAL**

[Liberia, Guanacaste – for immediate release] – Costa Rica’s first hydrogen transportation ecosystem reached operational status on November 27, 2017 with the completion of the last two remaining commissioning milestones of the project: the operational road tests of the fuel cell electric bus and the refueling demonstration of the vehicle from the hydrogen plant at Ad Astra’s facility near the city of Liberia in Costa Rica’s northwest. With these steps completed, the technical viability of the project is now demonstrated. The team will continue a series of transportation exercises in the surrounding communities near Liberia, before initiating the second stage of the project in 2018, which will measure the projected ecosystem’s business potential and financial sustainability.

The Costa Rica Project involves a private-public partnership, led by Ad Astra Rocket Company, which also includes Costa Rica’s Sistema de Banca para el Desarrollo (SBD), a public financial institution, promoting Costa Rica’s development and four other companies, including Air Liquide, a world leader in gases, technologies, and services for industry and health; US Hybrid Corporation, specializing in hydrogen fuel-cell electric vehicles, Cummins Inc. a US global power leader in diesel and alternative fuel engines, and Relaxury S.A., a subsidiary of Costa Rica’s Purdy Motor S.A, who will operate the bus for the partnership. All team members have contributed their own resources to the project.

A small ribbon-cutting inauguration was held on November 27, 2017 at Ad Astra, Liberia. The event was attended by Costa Rica’s President, His Excellency, Luis Guillermo Solís Rivera, First Lady Ms. Mercedes Peñas Domingo, local community members, government officials and leaders of the private partner companies.

Manufactured by Belgium’s Van Hool for US Hybrid Corp, who integrates the fuel-cell electric

power train, the bus has a seated capacity for 35 passengers and an approximate range of 338 km on 38 kg of compressed hydrogen. Other vehicle applications would be considered as the ecosystem expands. Hydrogen-electric transportation could help free Costa Rica from its dependence on imported oil, retaining a sizable portion of its GDP currently used to import fossil fuels. About 70% of Costa Rica’s energy is consumed by highly polluting transportation. With the Liberia installation, Costa Rica joins Brazil and Argentina as the third Latin American country to adopt hydrogen technology for transportation and becomes the first to integrate a fully renewable system.

**ABOUT THE TECHNOLOGY**

Hydrogen is produced from renewable electricity through water electrolysis and stored for later use. When used in transportation, hydrogen, stored on-board the vehicle, combines with oxygen from the air to produce electricity, which feeds an electric motor and produces movement. The only byproduct is clean water vapor. Hydrogen-based technologies enable the use of renewable energies for transportation while maintaining the range and fueling-speed convenience of traditional fossil-fuel vehicles.

**ABOUT Ad ASTRA**

A US Delaware corporation established in 2005, Ad Astra Rocket Company is the developer of the VASIMR® engine, an advanced plasma space propulsion system aimed at the emerging in-space transportation market. Ad Astra also owns and operates supporting research and development subsidiaries in the US and Costa Rica. Through its subsidiaries, the company also develops earthbound high technology applications in renewable energy, advanced manufacturing and applied physics. Ad Astra has its main laboratory and corporate headquarters at 141 W. Bay Area Blvd in Webster, Texas, USA, near NASA’s Johnson Space Center.